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## **I. Legal Authority**

Today’s proposed rule is issued under the authority of sections 301, 304, 306, 307, 308, 402, and 501 of the Clean Water Act (CWA), 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

## **II. Purpose and Summary of the Proposed Regulation**

Today, the Environmental Protection Agency proposes to revise and update two regulations that address the impacts on water quality from manure, wastewater, and other process waters generated by concentrated animal feeding operations (CAFOs). The National Pollutant Discharge Elimination System (NPDES) provisions in 40 CFR Part 122 define which operations are CAFOs and establish permit requirements for those operation. The Effluent Limitations Guidelines (ELG), or effluent guidelines, for feedlots in 40 CFR Part 412 establish technology-based effluent discharge standards that are applied to CAFOs. Both regulations were originally promulgated in the 1970s. EPA is proposing revisions to these regulations to address changes that have occurred in the animal industry sectors over the last 25 years, to clarify and improve implementation of CAFO permit requirements, and to improve the environmental protection achieved under these rules.

Environmental concerns being addressed by this rule include both ecological and human health effects. Manure from stockpiles, lagoons, or excessive land application rates can reach waterways through runoff, erosion, spills, or via groundwater. These discharges can result in excessive nutrients

(nitrogen, phosphorus, and potassium), oxygen-depleting substances, and other pollutants in the water. This pollution can kill fish and shellfish, cause excess algae growth, harm marine mammals, and contaminate drinking water.

On October 30, 1989, Natural Resources Defense Council, Inc., and Public Citizen, Inc., filed an action against EPA in which they alleged, among other things, that EPA had failed to comply with CWA section 304(m). Natural Resources Defense Council, Inc., et al. v. Reilly, Civ. No. 89-2980 (RCL) (D.D.C.). Plaintiffs and EPA agreed to a settlement of that action in a consent decree entered on January 31, 1992. The consent decree, which has been modified several times, established a schedule by which EPA is to propose and take final action for eleven point source categories identified by name in the decree and for eight other point source categories identified only as new or revised rules, numbered 5 through 12. After completing a preliminary study of the feedlots industry under the decree, EPA selected the swine and poultry portion of the feedlots industry as the subject for New or Revised Rule #8, and the beef and dairy portion of that industry as the subject for New or Revised Rule #9. Under the decree, as modified, the Administrator was required to sign a proposed rule for both portions of the feedlots industry on or before December 15, 2000, and must take final action on that proposal no later than December 15, 2002. As part of EPA's negotiations with the plaintiffs regarding the deadlines for this rulemaking, EPA entered into a settlement agreement dated December 6, 1999, under which EPA agreed, by December 15, 2000, to also propose to revise the existing NPDES permitting regulations under 40 C.F.R. part 122 for CAFOs. EPA also agreed to perform certain evaluations, analyses or assessments and to develop certain preliminary options in connection with the proposed CAFO rules. (The Settlement Agreement expressly provides that nothing in the Agreement requires EPA to select any of these options as the basis for its proposed rule.)

The existing regulation defines facilities with 1,000 animal units ("AU") or more as CAFOs. The regulation also states that facilities with 300 -1000 AU are CAFOs if they meet certain conditions. The term AU is a measurement established in the 1970 regulations that attempted to equalize the characteristics of the wastes among different animal types.

Today's proposals presents two alternatives for how to structure the revised NPDES program for CAFOs. The first alternative is a "two-tier structure" that simplifies the definition of CAFOs by establishing a single threshold for each animal sector. This alternative would establish a single threshold at the equivalent of 500 AU above which operations would be defined as CAFOs and below which facilities would become CAFOs only if designated by the permit authority. The 500 AU equivalent for each animal sector would be as follows.

- 500 cattle excluding mature dairy or veal cattle
- 500 veal cattle
- 350 mature dairy cattle (whether milked or dry)
- 1,250 mature swine weighing over 55 pounds
- 5,000 immature swine weighing 55 pounds or less

50,000 chickens  
 27,500 turkeys  
 2,500 ducks  
 250 horses  
 5,000 sheep or lambs

The second proposal would retain the “three-tier structure” of the existing regulation. Under this alternative, all operations with 1,000 AU or more would be defined as CAFOs; those with 300 AU to 1,000 AU would be CAFOs only if they meet certain conditions or if designated by the permit authority; and those with fewer than 300 AU would only be CAFOs if designated by the permit authority. These conditions are detailed in section VII of this preamble and differ from those in the current rule. Facilities with 300 AU to 1,000 AU would certify that they do not meet the conditions for being defined as a CAFO or apply for a permit. The 300 AU and 1,000 AU equivalent number of animals for each sector would be as follows:

<b>Animal Type</b>	<b>1,000 AU equivalent (no. of animals)</b>	<b>300 AU equivalent (no. of animals)</b>
Cattle excluding mature dairy or veal cattle	1,000	300
Veal	1,000	300
Mature Dairy Cattle	700	200
Swine weighing more than 55 pounds	2,500	750
Swine weighing 55 pounds or less	10,000	3,000
Chickens	100,000	30,000
Turkeys	55,000	16,500
Ducks	5,000	1,500
Horses	500	150
Sheep or Lambs	10,000	3,000

The Agency is also taking comment on two other alternatives that the Agency is considering and may pursue after evaluating comments.

Today’s proposal would also expand the regulatory definition of CAFOs to include all types of poultry operations regardless of the type of manure handling system or watering system they use, and also would include standalone immature swine and heifer operations.

Under the two-tier proposal, EPA is proposing to simplify the criteria for being designated as a CAFO by eliminating two specific criteria that have proven difficult to implement, the “direct contact” criterion and the “man made device” criterion. Under the three-tier proposal, EPA is proposing to

retain those criteria for designating operations which have less than 300 AU. Both proposals retain the existing requirement for the permit authority to consider a number of factors to determine whether the facility is a significant contributor of pollution to waters of the U.S., and the requirement for an on-site inspection prior to designation. EPA is also proposing to clarify that EPA has the authority to designate CAFOs both in states where EPA is the permit authority and in States with NPDES authorized programs.

EPA is proposing to eliminate the 25-year, 24-hour storm event permit exclusion and to impose a broader, more explicit duty for all CAFOs to apply for a permit (with one exception as described below). Under the current regulations, facilities are excluded from being defined as, and thus subject to permitting as, CAFOs if they discharge only in the event of a 25-year, 24-hour storm. This exclusion has proven to be problematic in practice, as described below, and ultimately unnecessary. There are many operations that currently may be avoiding permitting by an inappropriate reliance on this exclusion. The Agency believes there is no reason to retain this exclusion from the definition of a CAFO. However, EPA is proposing to retain the 25-year, 24-hour storm standard as a design standard in the effluent guidelines for certain sectors (specifically, the beef and dairy sectors). CAFOs in those sectors would need to obtain permits, but the permits would allow certain discharges as long as the facility met the 25-year, 24-hour storm design standard.

In sum, under today's proposal, all operations that meet the definition of a CAFO under either of the two alternative structures (as well as all operations that are designated as CAFOs) would be required to apply for a permit. There would, however, be one exception to this requirement, as described in more detail below: If the operator could demonstrate to the permitting authority that the facility has "no potential to discharge," then a permit application and a permit would not be required.

Under the two-tier structure, the net effect of the revisions for determining which facilities are CAFOs is to require approximately 26,000 operations to apply for a NPDES permit. Under the three-tier structure, EPA estimates that approximately 13,000 operations would be required to apply for a permit, and an additional 26,000 operations could either certify that they are not a CAFO or apply for a permit. Under the existing regulation, EPA estimates that about 12,000 facilities should be permitted but only 2,530 have actually applied for a permit.

Today's proposal would clarify the definition of a CAFO as including both the production areas (animal confinement areas, manure storage areas, raw materials storage areas and waste containment areas) and the land application areas that are under the control of the CAFO owner or operator. As the industry trend is to larger, more specialized feedlots with less cropland needing the manure for fertilizer, EPA is concerned that manure is being land applied in excess of agricultural uses and, therefore, being managed as a waste product, and that this practice is causing runoff or leaching to waters of the U.S. The permit would address practices at the production area as well as the land application area, and would impose record keeping and other requirements with regard to transfer of manure off-site.

EPA is further proposing to clarify that entities that exercise “substantial operational control” over the CAFO are “operators” of the CAFO and thus would need to obtain a permit along with the CAFO owner or operator. The trend toward specialized animal production under contract with processors, packers and other integrators has increasingly resulted in concentrations of excess manure beyond agricultural needs in certain geographic areas. Especially in the poultry and swine sector, the processor provides the animals, feed, medication and/or specifies growing practices. EPA believes that clarifying that both parties are liable for compliance with the terms of the permit as well as responsible for the excess manure generated by CAFOs will lead to better management of manure.

The proposed effluent guidelines revisions would apply only to beef, dairy, swine, poultry and veal operations that are defined or designated as CAFOs under either of the two alternative structures and that are above the threshold for the effluent guideline. For those CAFOs below the threshold for being subject to the effluent guidelines, the permit writer would use best professional judgment (BPJ) to develop the site-specific permit conditions.

Today’s proposed effluent guidelines revisions would not alter the existing effluent guideline regulations for horses, ducks, sheep or lambs. In these sectors, only facilities with 1,000 AU or more are subject to the effluent guidelines. Permits for operations in these subcategories with fewer than 1,000 AU would continue to be developed based on the best professional judgement of the permit writer.

The proposed effluent guidelines regulations for beef, dairy, swine, poultry and veal operations will establish the Best Practicable Control Technology (BPT), Best Conventional Pollutant Control Technology (BCT), and the Best Available Technology (BAT) limitations as well as New Source Performance Standards, including specific best management practices which ensure that manure storage and handling systems are inspected and maintained adequately. A description of these requirements is in Section III.

Under the BPT requirements for all of the subcategories, EPA is proposing to require zero discharge from the production area except that an overflow due to catastrophic or chronic storms would be allowed if the CAFO met a certain design standard for its containment structures. If a CAFO uses a liquid manure handling system, the storage structure or lagoon would be required to be designed, constructed and maintained to capture all process wastewater and manure, plus all the storm water runoff from the 25-year, 24-hour storm.

The proposed BPT limitations also include specific requirements on the application of manure and wastewater to land that is owned or under the operational control of the CAFO. EPA is proposing to require that CAFOs apply their manure at a rate calculated to meet the requirements of the crop for either nitrogen or phosphorus (depending on the soil conditions for phosphorus). Livestock manure tends to be phosphorus rich, meaning that if manure is applied to meet the nitrogen requirements of a crop, then phosphorus is being applied at rates higher than needed by the crop. Repeated application

of manure on a nitrogen basis may build up phosphorus levels in the soil, and potentially result in saturation, thus contributing to the contamination of surface waters through erosion, snow melt and rainfall events. Therefore, EPA is also proposing that manure must be applied to cropland at rates not to exceed the crop requirements for nutrients and the ability of the soil to absorb any excess phosphorus. BPT establishes specific record keeping requirements associated with ensuring the achievement of the zero discharge limitation for the production area and that the application of manure and wastewater is done in accordance with land application requirements. EPA also proposes to require the CAFO operator to maintain records of any excess manure that is transported off-site.

BAT limitations for the beef and dairy subcategories would include all of the BPT limitations described above and, in addition, would require CAFOs to achieve zero discharge to ground water beneath the production area that has a direct hydrologic connection to surface water. In addition, the proposed BAT requirements for the swine, veal and poultry subcategories would eliminate the provision for overflow in the event of a chronic or catastrophic storm. CAFOs in the swine, veal and poultry subcategories typically house their animals under roof instead of in open areas, thus avoiding or minimizing the runoff of contaminated storm water and the need to contain storm water.

EPA is also proposing to revise New Source Performance Standards (NSPS) based on the same technology requirements as BAT for the beef and dairy subcategories. For the swine, veal and poultry subcategories, EPA proposes revised NSPS based on the same technology as BAT with the additional requirement that there be no discharge of pollutants through ground water beneath the production area that has a direct hydrological connection to surface waters. Both the BAT and NSPS requirements have the same land application and record keeping requirements as proposed for BPT.

Today's proposal would make several other changes to the existing regulation, which would:

- C require the CAFO operator to develop a Permit Nutrient Plan for managing manure and wastewater at both the production area and the land application area;
  - C require certain record keeping, reporting, and monitoring;
  - C revise the definition of an animal feeding operation (AFO) to more clearly exclude areas such as pastures and rangeland that sustain crops or forage during the entire time that animals are present;
  - C eliminate the mixed-animal type calculation for determining which AFOs are CAFOs;
- and
- C require permit authorities to include the following conditions in permits to: 1) require retention of a permit until proper facility closure; 2) establish the method for operators to calculate the allowable manure application rate; 3) specify restrictions on timing and

methods of application of manure and wastewater to assure use for an agricultural purpose (e.g., certain applications to frozen, snow covered or saturated land) to prevent impairment of water quality; 4) address risk of contamination via groundwater with a direct hydrological connection to surface water; 5) address the risk of improper manure application off-site by either requiring that the CAFO operator obtain from off-site recipients a certification that they are land applying CAFO manure according to proper agricultural practices or requiring the CAFO to provide information to manure recipients and keep appropriate records of off-site transfers, or both; and 6) establish design standards to account for chronic storm events.

Today's proposal would also:

- C clarify EPA's interpretation of the agricultural storm water exemption and its implications for land application of manure both at the CAFO and off-site; and
- C clarify application of the CWA to dry weather discharges at AFOs.

EPA is seeking comment on the entire proposal. Throughout the preamble, EPA identifies specific components of the proposed rule on which comment is particularly sought.

### **III. Background**

#### **A. The Clean Water Act**

Congress passed the Federal Water Pollution Control Act (1972), also known as the Clean Water Act (CWA), to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." (33 U.S.C. § 1251(a)). The CWA establishes a comprehensive program for protecting our nation's waters. Among its core provisions, the CWA prohibits the discharge of pollutants from a point source to waters of the U.S. except as authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The CWA establishes the NPDES permit program to authorize and regulate the discharges of pollutants to waters of the U.S. EPA has issued comprehensive regulations that implement the NPDES program at 40 CFR Part 122. The CWA also provides for the development of technology-based and water quality-based effluent limitations that are imposed through NPDES permits to control discharges of pollutants.

#### **1. The National Pollutant Discharge Elimination System (NPDES) Permit Program**